

**REMARKS**

Claims 1-9 now stand in the application, new claims 7-9 having been added.

Reconsideration of the application and allowance of all claims are respectfully requested.

The present invention is an improvement in an arrangement of the type (shown in Fig. 1) having a photovoltaic cell 101 covered by a protection layer 102, and a reflecting concentrator 106 which reflects incident light toward the surface of the layer 102. The improvement according to the present invention, in its simplest form, is the addition of a filtering layer 206 to the reflecting concentrator.

Osborn is interested in both photovoltaic (PV) and photothermal (PT) energy conversion, and recognizes that the heat generated in PT conversion may lead to inefficiency in PV conversion. Osborn proposes to separate the two, and does this by using a Spectrally Selective Beam Splitter (SSBS) to direct wavelengths that are suitable for efficient PV conversion to a PV converter, while directing other wavelengths to a PT converter separate from the PV converter and therefore not contributing to undesirable heating of the PV converter.

Osborn describes two different SSBS configurations, one being an interference filter and the other being an absorption filter. Interference filters may be either transmissive or reflective, and absorption filters are transmissive.

While Osborn is relevant in teaching the reduction of wavelengths that are non-productive for PV conversion, the mechanism is different from that of the present invention. Note that the protection layer 102 in Fig. 1 of the present application is a bandpass transmissive

filter as that term is used in Osborn, with the layer 102 reflecting radiation that is unwanted for the PV conversion and passing to the PV cells the radiation wavelengths that are desired for PV conversion. The problem addressed by the present invention is that this does not work well enough, so an additional filtering is performed in tandem. Protective layer 206 is also a bandpass transmissive filter, reflecting unwanted radiation 218 while passing desired radiation 207. This bandpass transmissive filter is placed over a reflecting concentrator 206.

Turning now to a more detailed comparison of Osborn and the present invention, the examiner refers to page 305 of Osborn as showing a photovoltaic cell covered by a transparent protective layer, but no such protective layer is shown or apparently described in Osborn. The examiner also refers to page 305 as showing a “reflecting concentrator/Fresnel lens”, but Osborn does not say anything about a reflecting concentrator, and a Fresnel lens is not such a device. The Fresnel lens simply concentrates. It is not a reflecting concentrator.

Accordingly, a careful review of Osborn shows that it is a different structure from what is disclosed and claimed in the present application, lacking a reflecting concentrator, a filter covering the reflecting concentrator and a protection coating over the photoelectric cell. Accordingly, the invention defined in claim 1 is neither shown nor suggested in the art of record.

The dependent claims recite further features not shown or suggested in Osborn, but it is sufficient here to note that they distinguish over Osborn due to their dependence on claim 1.

New claims 7-9 have been added to further emphasize the distinctive structure of the invention.

AMENDMENT UNDER 37 C.F.R. § 1.111  
U.S. Application No.: 10/510,183

Attorney Docket No.: Q83823

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

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Date: December 6, 2007

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